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KUNDERD
GLADIOLI

1920



Dedicated to
the Origin of
The Ruffled Gladiolus



A. E. KUNDERD
GOSHEN, IND.



GLADIOLUS "KUNDERDII GLORY"

This is the first Ruffled Gladiolus, scientifically produced, ever sent out. It is a beautiful creamy apricot with deeper tint of pink on outer edges of petals and has fine red feathered markings in the throat. With special culture has been grown up to six feet in height. It has received many certificates and awards. We give it first place, as it is the parent of many new ruffled varieties. "Kunderdii Glory" was at first sold at \$1.00 each, but in the hands of a skillful plant breeder was easily worth a thousand dollars. It is now well known all over the world and generally sells for about 10 cents.

FOREWORD

BEING neither an author or an orator, but merely "The Originator of The Ruffled Gladiolus," I cannot present my readers with a literary production, but must content myself with a brief recital of historical facts and data which shall be a record of one of the world's greatest floral productions, and a monument to the science of modern Plant Breeding, the production of Ruffled Gladiolus.



Modern Gladiolus

THIS little booklet is issued instead of my regular catalog, as I have recently sold to a gentleman in Cleveland all my surplus bulbs for the season of 1920. I cannot give the address of the purchaser, as he intends to first grow a large stock before offering any of it for sale, nor can I supply any bulbs in any sizes, nor seeds, for the coming summer.

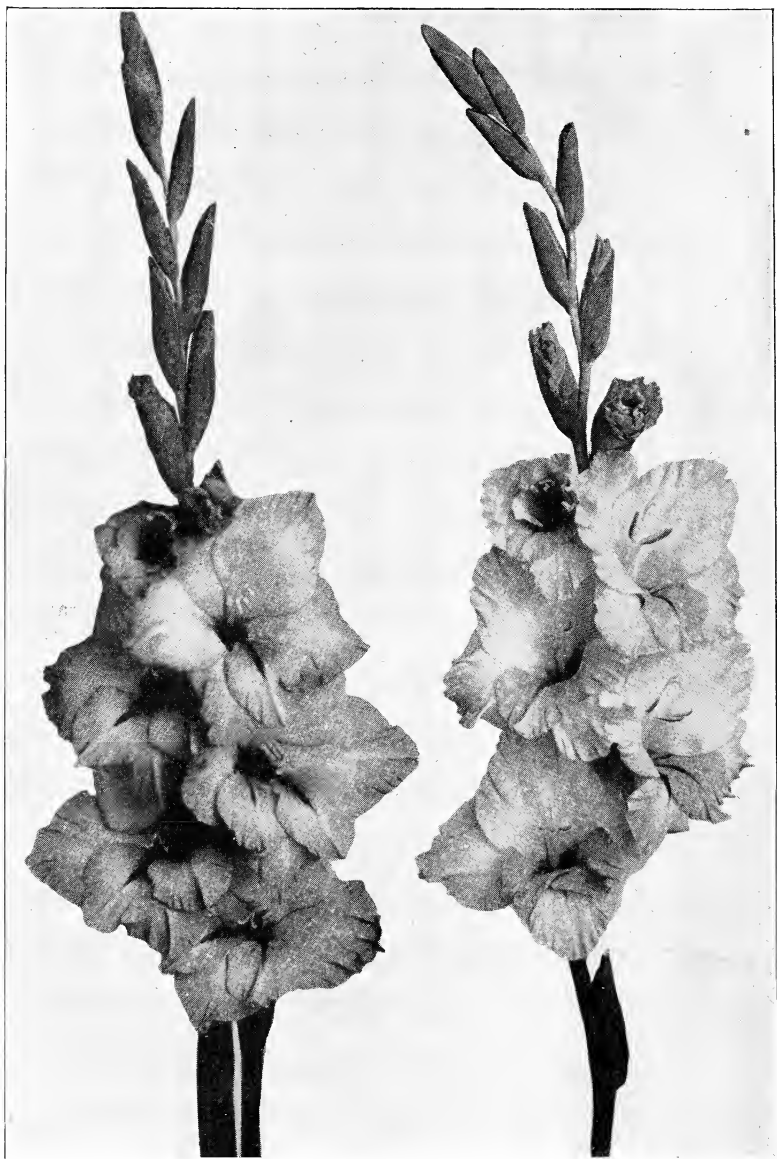
Instead of a catalog I have decided to publish this little booklet in appreciation of the kind patronage from thousands of people representing more than twenty nations all over the world. As this booklet will be sent to many persons who may be profited by information on the care, culture, etc., of the Gladiolus, I shall include an additional page or two for their benefit.

The thousands of people who for years have sent me their orders for my new Ruffled Gladiolus and other varieties, need not be told of their marvelous beauty and superiority over all others, as their fine testimonials reproduced herein will show; but all lovers of the Gladiolus will be glad to learn something about their development and the originator. Their popularity has increased so rapidly that it has never yet been possible to supply the demand. Up to the time when the Ruffled Gladiolus were offered by me, no such strains were in existence, and only these have made it necessary to provide a new classification for such a type. Prof. L. H. Bailey, of Cornell University, has given them a class, "Kunderdii" (meaning the ruffled varieties), in the latest edition of his wonderful new six volume "Standard Cyclopedia of Horticulture," published by the MacMillan Co. Even now no other grower can offer a ruffled strain of *Primulinus* Hybrids, and a new late flowering strain as offered in my catalogs for the last several years. The editor of "The Garden Magazine" has pronounced them "an epoch-making event in horticulture." In the following pages I will give a few of the many articles that have been written about them.

It would be tiresome to read of the many years of endless efforts, the trials and failures before the success aimed at was achieved, and the results were offered to the world in the forms of these most wonderful of all Gladiolus.

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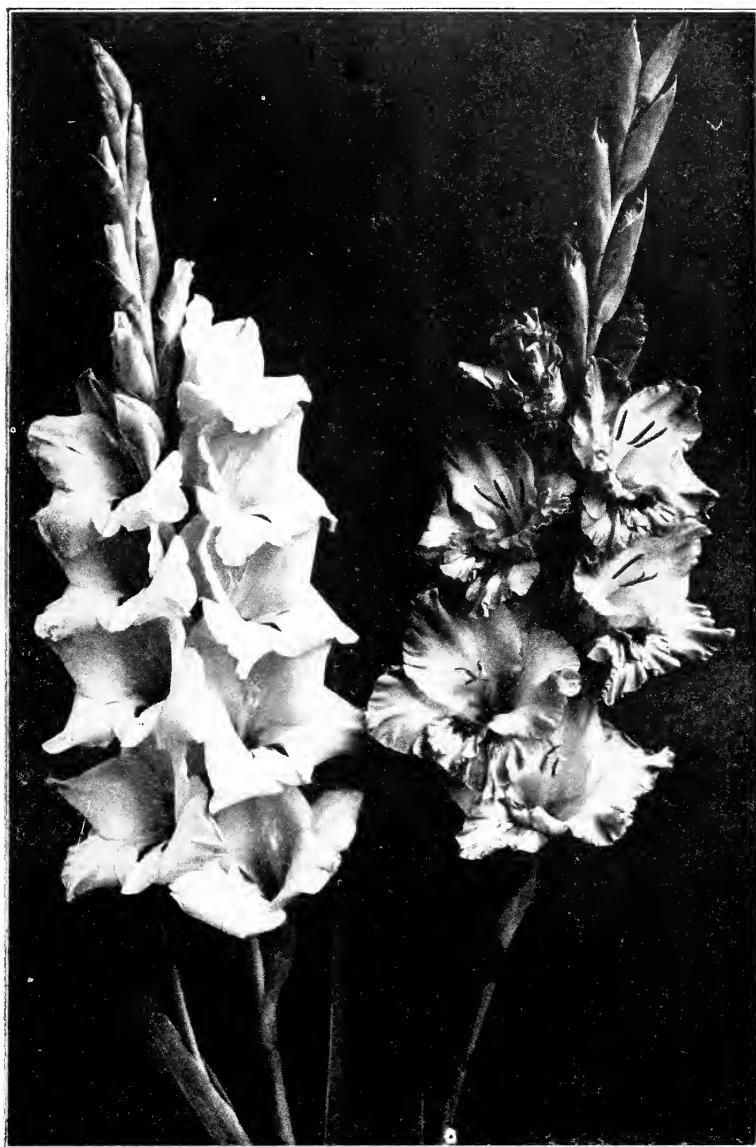
Two Ruffled Beauties



ROSE GLORY

ANTHONY B. KUNDERD

Two Grand Varieties



GOLDEN BUFF

ECHO

Well do I remember as if it were yesterday when as a Hoosier boy of a dozen years, some forty years ago, my eyes for the first time met the sight of a well-grown spike of the old scarlet variety of "Brenchleyensis." It was on a beautiful Sunday evening just after a rain when a neighbor boy came across the fields wearing a spike of this variety pinned across his coat lapel. It was the most beautiful flower I had ever seen and "as vivid as a flame." This event was the introduction to a life's labor and formed the nucleus of what has now become the most wonderful of all *Gladiolus*.

When the following springtime came I managed to secure a few bulbs from the neighbor across the field, and since then my enthusiasm has never waned. Each following year I added as many new kinds as possible. Every available penny was invested and everything else was made subservient to "the cause." Some years later M. Lemoine, of Nancy, France, introduced his beautiful "Butterfly" varieties, and soon after the large flowered "Nanceianus." A little later the famous "Childsii" were offered, and about 1900 the wonderful Groff Hybrids.

From all of these and other strains the finest were secured and all their best qualities bred into my collection. Vast numbers of new seedlings were produced and many selections and recombinations of the best were made (and an occasional infusion of the most desirable species was incorporated and tried out). The results were combined with certain species which I had learned from experiments would produce a tendency to develop the ruffled forms. This labor was continued for years and when the ruffled type was fully established further selections were continued for vigor, variety and beauty of forms and colors, until now they are equaled by no other race of *Gladiolus* in existence.

Their introduction came as a surprise to the floral world, as no one else had a vision of such flowers, or at least had never produced them. Luther Burbank and many other famous men and women have given them their highest praise and some of their letters are herein given. *Gladiolus* growers everywhere have eagerly sought my new introductions each year for use in their crosses and are also producing new ruffled seedlings, but all of them show the same characteristics of mine, differing only in tints of color, as all varieties do, showing clearly their ancestral parentage. With a knowledge gained from an experience of many years, and the secret of the origin of The Ruffled *Gladiolus*, and a resultant collection of vast extent, my friends can be certain of being able in the future to secure from me results unequalled by any other grower in the world, regardless of prices. In an article by Matthew Crawford, in the "Cuyahoga Falls (Ohio) Reporter," March 10, 1910, the then already large extent of my collection of ruffled varieties is shown, and extracts from other sources are also quoted. Millions of seedlings from careful crosses of these ruffled strains have been bloomed on my grounds, and selections and re-selections from them have been continued for upwards of twenty years until our collection is beyond comparison with that of any other grower in the world. Today over

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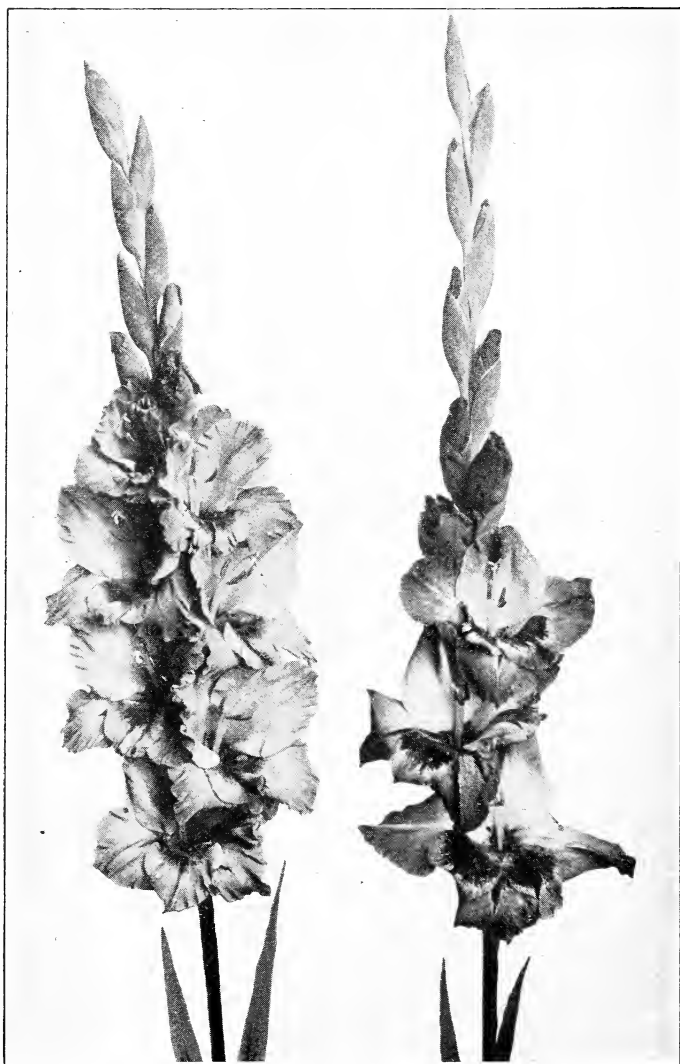
5,000 separately grown varieties (all of my own origin) find a deserving place on my grounds. It is easy to win awards and make extravagant claims where REAL competition is not encountered, but to carry off the highest awards before the foremost Horticultural Societies, The American Gladiolus Society, The Massachusetts Horticultural Society, and wherever shown in a fair and open field, is entirely a different task. In justice to myself, I should here inform my readers that a representative collection of my varieties has never been exhibited west of Chicago. Arrangements are being made to exhibit a large collection of my varieties before the American Gladiolus Society and the Society of American Florists, at Cleveland, Ohio, next August, and it is hoped that all growers and originators will make an effort to stage their best productions in order that competent judges and the general public may be able to pass on relative merits.

It is a great pleasure in the flowering season each morning to walk among thousands of new seedlings, never before bloomed, and watch for the rare gems that now and then unfold themselves to the eye of the beholder. It is like finding a rare pearl to discover such new-born beauties, and their value to aesthetic development and the general good is more important than rubies and diamonds.

In coming years it shall be my endeavor to continue in the improvement and production of still other beautiful Gladioli. We enjoy our work and always try to please our friends and patrons. We deal with our customers as if they were personal friends, and they really are. Write us as friends; we feel that way toward you. Tell us of your success with your bulbs, and of any disappointments, so we may help you. We take great pains to keep our stocks free from "rogues" and clean and free from disease. It does not often happen that a wrong bulb is sent out. On an average there is less than one "rogue" among every 5,000 bulbs we grow. Our system of filling orders is so well organized that few wrong or defective bulbs are sent out, and we always gladly correct any unintentional mistakes.

In this booklet will be found the most complete and reliable instructions on the care and culture of Gladiolus ever written. Many wonderful stories of giant blooms and plants have been written, but these are mainly the results of culture, soil and climate. Referring to the advice so often given of leaving on the tops at digging time, we will say that no grower has sent out more reliable bulbs than we and it is our invariable practice to cut off the tops on the same day the plants are dug. Another suggestion is often made that where bulbs are cut into pieces to promote more rapid increase, they should be planted soon after cutting. In an experience of more than thirty years I have found that pieces of bulbs containing the "eyes" are less liable to rot when planted if the wounds are first left to dry or heal for several days. When bulbs are cut for purpose of increase the wounded surfaces should be lightly dusted with sulphur, or dry air-slacked lime, and placed in a sunny position or exposed to dry warm air for several days before planting.

Distinctive Types



ALTON

LILY BLOTCH

TWO VERY BEAUTIFUL GLADIOLI

“Kunderdii” Type



WHITE GLORY



ORANGE GLORY

A Wonderful New Strain of Gladiolus

THE LATE MATTHEW CRAWFORD, author of the book of "The Gladiolus" (published by Vaughan's Seed Stores, Chicago and New York), whose many years of labor with this flower have earned for him the title of "the grand old man of the Gladiolus," after a visit to my former home at Fort Wayne, Ind., wrote his home paper, "The Cuyahoga Falls (Ohio) Reporter," March 11, 1910, as follows:

For the Reporter.

"When visiting my son in Oak Park, Chicago, I decided to return via Fort Wayne, Ind., and see my friend, Mr. A. E. Kunderd, who is becoming famous as the originator of the new Ruffled Gladioli. I reached his place after noon and found him at home. We had met before, and have been corresponding for years. He has had some ten or more years' experience with the Gladiolus and I over forty; so we had plenty to talk about. In my seventy years I have met many specialists, but never one that interested me more than did Mr. Kunderd. He is the only man in the world that has produced a Ruffled Gladiolus by scientific methods. On Thursday, the second day of my visit, we spent most of the day in looking at his stock. As the temperature of the cellar is about forty, we had to come up frequently to get warm. I saw hundreds of varieties worth more than I would dare to tell. Of some there were only two bulbs of a kind, of others a bushel or two, and of one some 30,000 of blooming size. Of two-year seedlings of blooming size, all from ruffled stock, there are some 25,000, and as many of one-year. His standard is high and he burns a great many bulbs that some growers would be proud of. Of course, he has many fine ones that are not ruffled. One of them is now being sold by an Eastern firm at \$10.00 a dozen. I have grown some of his ruffled stock for two years and am charmed with it. I brought some of it home with me so that my friends may see it here. It is immensely more beautiful than the plain. We see the ruffled or waved sweet peas superseding the plain. We have the pansies and petunias ruffled, and who will say that the daffodil is not more beautiful with its crimped trumpet? However, I am looking for Ruffled Gladioli to become very popular in spite of some envious growers who are trying to belittle them.

Signed: M. CRAWFORD."

A New Type, Bearing Characteristics Entirely New

EXTRACTS from an article by MR. S. F. MORTON in a review of "The Modern Gladiolus" in the "Portland (Me.) Evening Express," Feb. 4, 1914. Mr. Morton helped to organize The American Gladiolus Society and was a charter member.

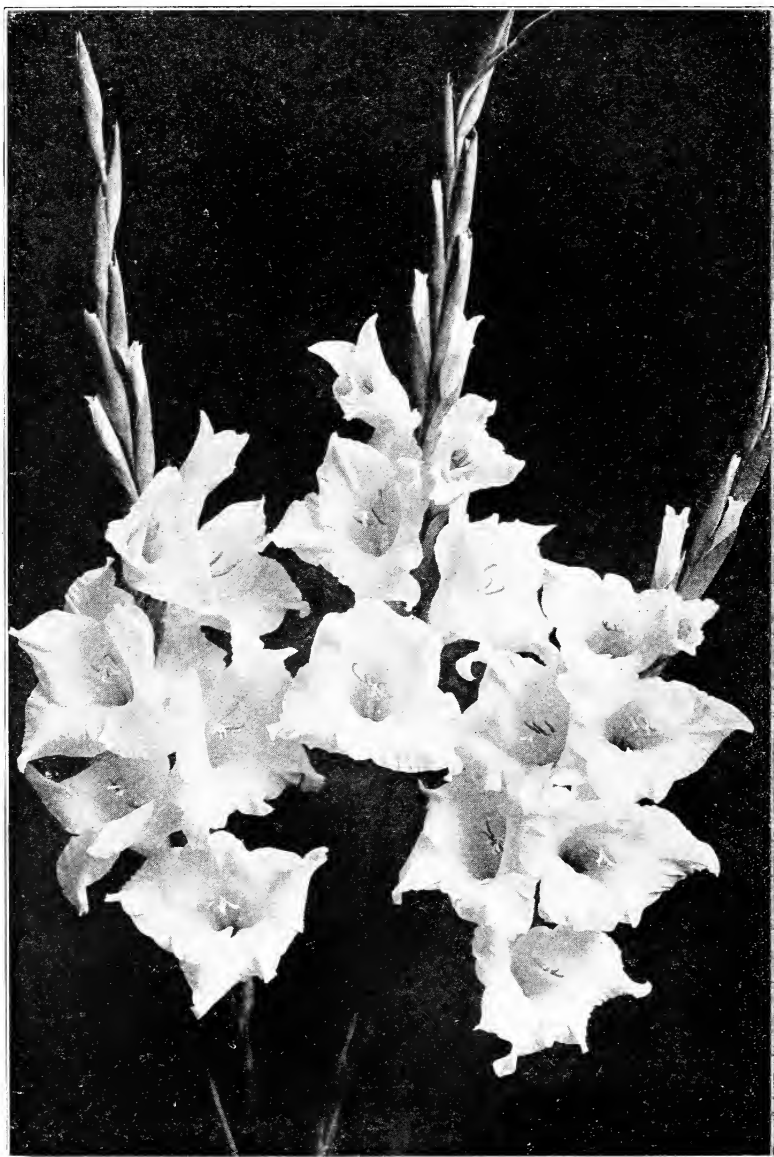
"All over the United States and Canada, hybridizers have been at work and many beautiful flowers have resulted. But only one man has succeeded in producing **A NEW TYPE, BEARING CHARACTERISTICS ENTIRELY NEW.** This is the new Ruffled Gladiolus produced by A. E. Kunderd, of Goshen, Indiana, and named by him 'Kunderdii' type. The petals of this flower are ruffled and fluted like the petals of the newer sweet peas.

"The results of Mr. Kunderd's work are very gratifying to Americans, as heretofore all the honors have been claimed by foreigners. The only family given an American name was originated in Germany, and purchased and named by an American firm. But Mr. Kunderd has produced a sturdy race and there is scarcely a list offered anywhere in the world to the general public, excepting those of course offering exclusively the grower's own bulbs, that does not contain some of his origin. Not only the ruffled type, but many of the leading varieties in other types are of his origin. One of the most popular and striking Gladiolus of the present day is 'Mrs. Frank Pendleton'—originated by Mr. Kunderd. 'Rajah' is another variety of his that has always held top place."



The above medal was awarded to me for an exhibit of fifty varieties, including also Ruffled Primulinus Hybrids, exhibited at The Chicago Horticultural Society's show in the summer of 1913, and reported and illustrated in "The American Florist", Aug. 23, 1913. Since then hundreds of medals, first class certificates of merit, etc., have been awarded these Gladioli by the foremost Horticultural Societies of Canada, Australia, England, Holland, and other foreign countries.

The Wonderful New White Ruffled Gladiolus



MARIE KUNDERD

More Proof of Quality



CRINKLES

("Crinkles" is illustrated in Prof. Bailey's Cyclopedia of Horticulture.)



PRIDE OF GOSHEN

Ruffled Gladioli

About a dozen years ago I began selections with a view to crossing in the hope of producing a frilled or ruffled *Gladiolus* as beautifully formed as an azalea. I got the cue from observing in some Gladioli a tendency to vary some from the regular smooth petals. After many matings and failures I was at last rewarded about five years ago by the desired results. The first flower to show was an ideal cream in color with tint of blush and a strikingly marked red feather on three lower petals. This flower is very massive, over $4\frac{3}{4}$ inches in diameter and an extra strong grower. From bottom of first blossom to tip of spike it measures 22 inches and over. The foliage is large. There are shades of pink and yellow, also purple, represented in the varieties now in process of development, all beautifully ruffled, and four generations of seedlings are also coming on. Competent florists and seedsmen who have seen the plant in bloom pronounce it the most marvelous and striking *Gladiolus* yet produced and the beginning of what will probably become the finest race of Gladioli.

Signed: A. E. KUNDERD.

(Taken from an article in "Horticulture," Boston, February 8, 1908.)

Opinions of Two World-Famous Horticulturists

LUTHER BURBANK,
"The Wizard of Horticulture."

Santa Rosa, Calif., Nov. 22, 1910.

The Ruffled *Gladiolus* which you sent me last spring (Kunderd's Glory) bloomed nicely this summer. It is a fine, light color, elegantly ruffled, and a strong, healthful grower.

The Ruffled *Gladiolus*, like the Ruffled Sweet Peas, have a refined appearance which the common flat ones do not possess.

Yours very truly,

LUTHER BURBANK.

MATTHEW CRAWFORD,

Author of "The *Gladiolus*" and "Dean of the *Gladiolus* Fraternity,"
whose judgment is deferred to by all who know him, says:

"I have grown Kunderd's New Ruffled Gladioli for several years and am charmed with them. They are immensely more beautiful than the plain." Again: "Mr. Kunderd was the first man in the world to produce Ruffled Gladioli by scientific methods."

Sincerely yours,

MATTHEW CRAWFORD.

Cuyahoga Falls Ohio, March 11, 1910.

Ruffled Gladioli

At Kendallville, Ind. (and Van Wert, Ohio), A. E. Kunderd has for years been breeding and selecting Gladioli with a view to the development and fixing of the type of flower illustrated in the accompanying reproductions from photographs. It will be seen that the petals are ruffled, unlike any *Gladiolus* heretofore known. Mr. Kunderd believes that he is well under way to the development of the most magnificent type of this flower, as these varieties are now well established in character, and he has others in which the development is even more marked.

The plant is strong and it is said that flowers over five inches in diameter have been produced. The ruffling is even more apparent in the natural flower than it is in the photographic reproductions. The flutings are up to five-eighths of an inch deep.

A bulb of one of the varieties described was sent to Luther Burbank and was returned in November, 1910, with 142 cormels.

Mr. Kunderd also is at work on some other types. One is a flower that he describes as saucer-shaped, the petals being all of about the same proportions and opening so that the tube is short. He is hybridizing to put the ruffle also on this form of flower. He also has a type in which the flowers are well distributed around the stem, with blooms as upright as tuberoses, and with long tubes. In this form all six petals are exactly alike. This class comes in light colors, some being solid colors and others having all the petals blotched. Other sorts on which Mr. Kunderd is at work provides still other interesting variations.

(Taken from "The Weekly Florists' Review," January 23, 1908.)

Opinions of "Kunderdii Glory" From Leading Authorities:

DR. W. VAN FLEET, Expert in charge of U. S. Department of Agriculture, Bureau of Plant Industry, formerly the great Horticulture Editor of the "Rural New Yorker," Originator of *Princeps*, etc., says: "I am glad to hear of your continued success with the Ruffled *Gladiolus*. The one you sent me two years ago (*Kunderdii Glory*) is very beautiful indeed; good color, fine spike and substance, and exquisite finish."

MESSRS. T. C. THURLOW'S SONS, West Newbury, Mass. ("*The Peony Kings*"), on December 25, 1915, wrote: "We liked the *Gladioli* you sent us last spring very much, especially the '*Kunderdii Glory*,' which is one of the finest light-colored ones we have ever seen."

L. MERTON GAGE, Ex-Secretary of The American *Gladiolus* Society, wrote us in the summer of 1909: "'Ruffled' is in bloom. 'Grand' does not begin to express it. It is the '*sans pareil*' of all *Gladioli*."

S. E. SPENCER, Woburn, Mass., Member of The American *Gladiolus* Society, says: "They are the wonder of the whole neighborhood," etc., etc.

Two Very Extra Varieties

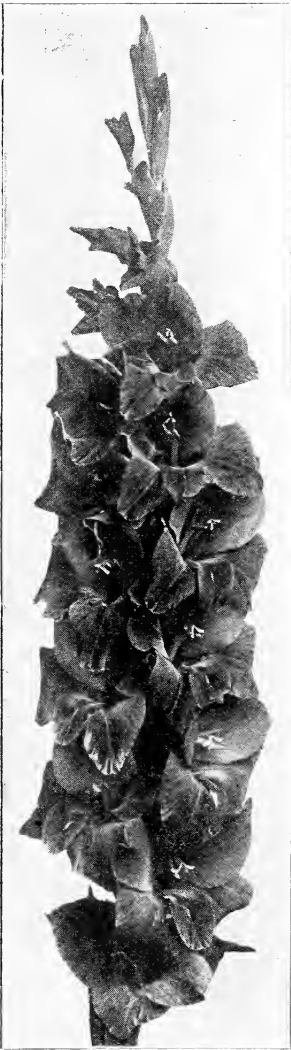


ROBERT J. KUNDERD

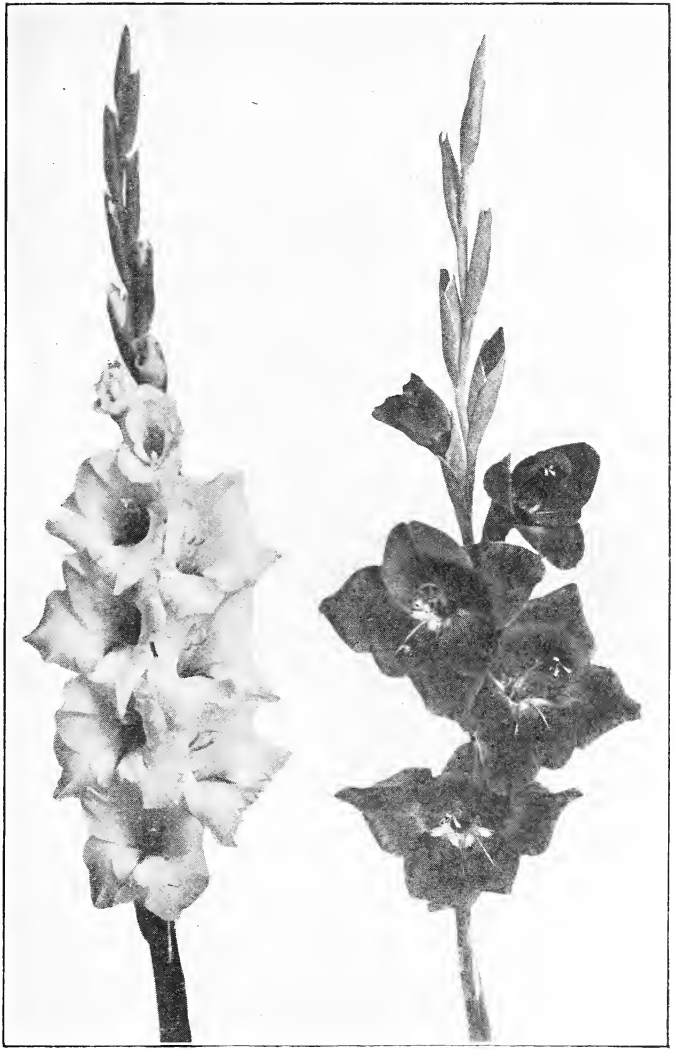


ADORATION

Differing Types

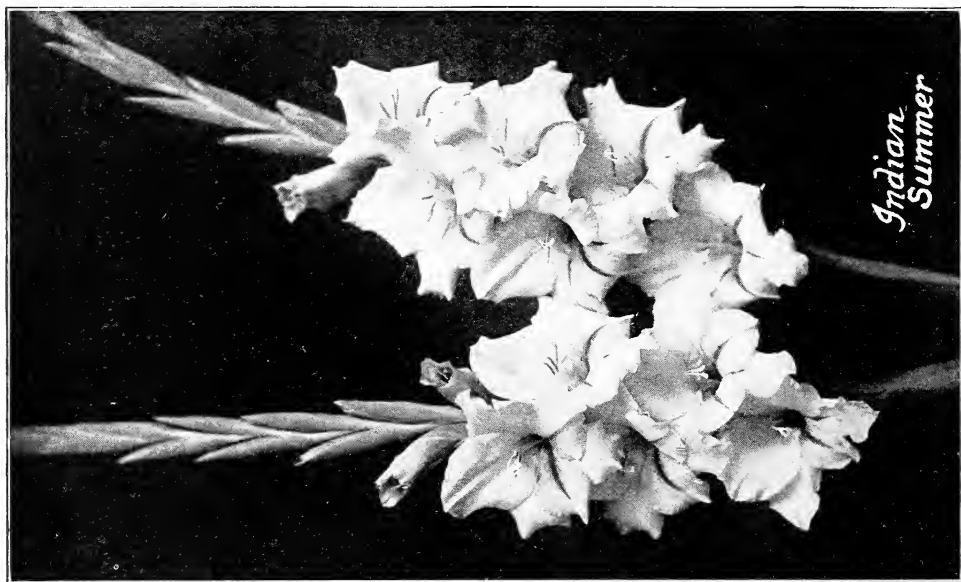


FIRE RIBBON



SNOW BOY

BLACK PANSY



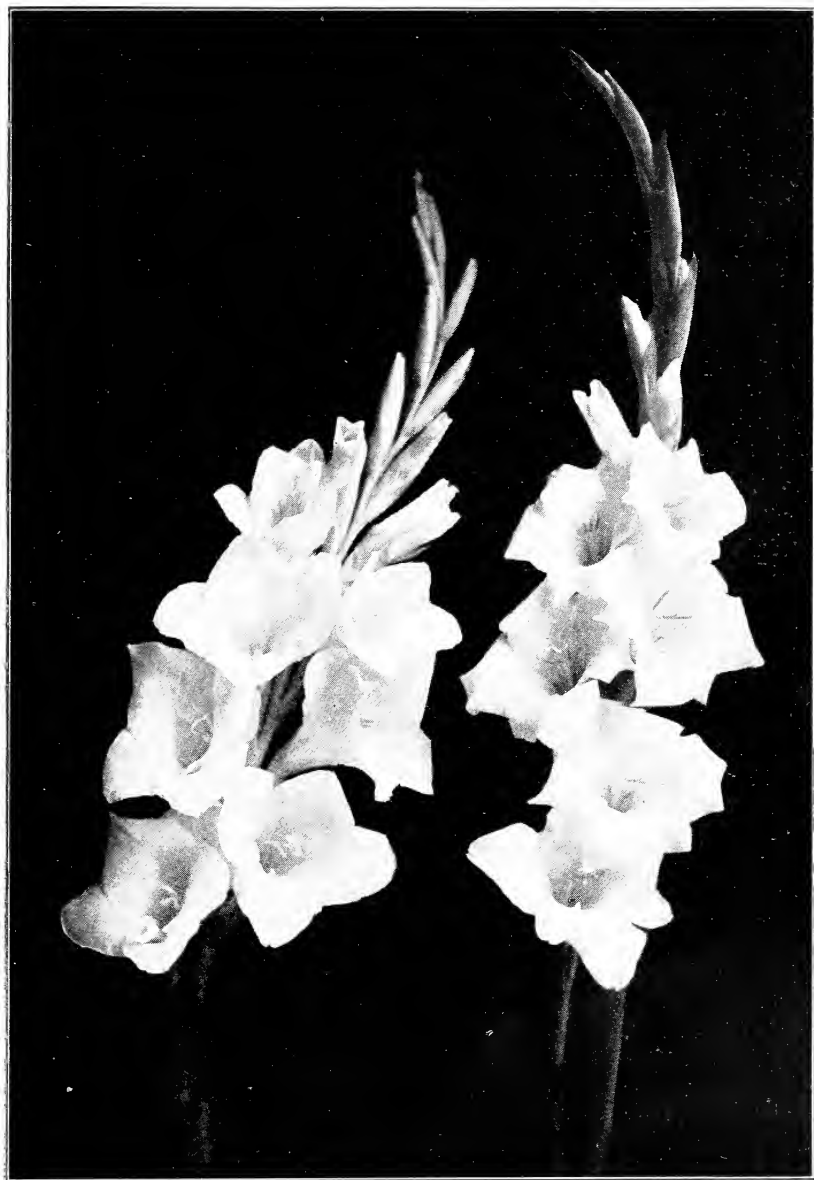
One of our new, very late flowering race.



R. W. & G.

NO. 163

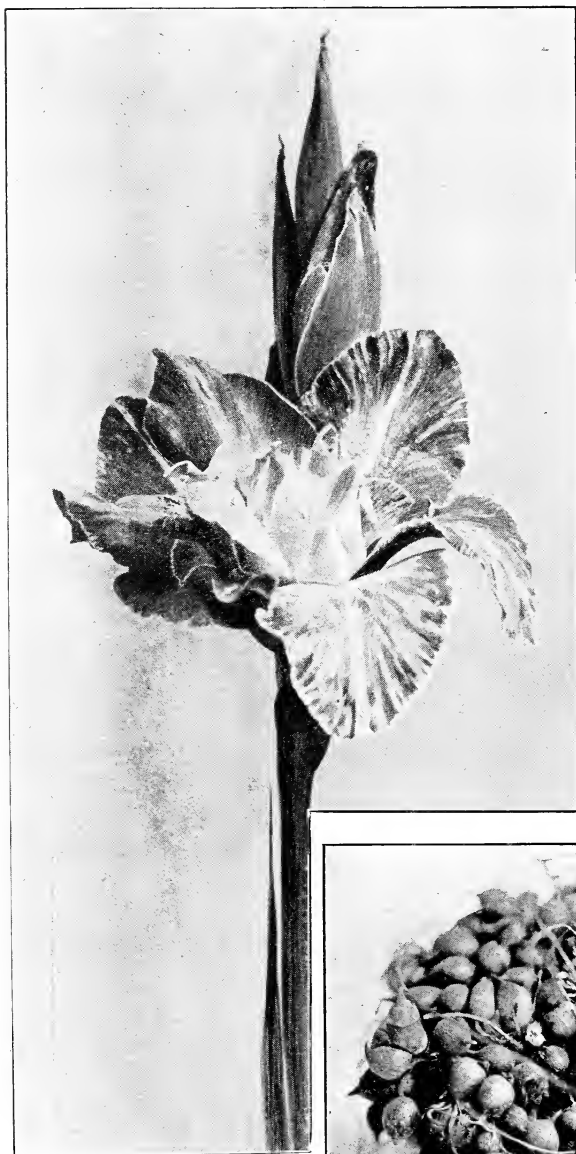
Two Extra Choice White Gladioli



MARY PICKFORD

LILYWHITE

LILYWHITE: Very beautiful and very early all snow white variety. MARY PICKFORD: An exceedingly delicate and chaste flower of most beautiful velvety appearance, of soft creamy white. A mellow pastel color. Both of these varieties have received first class certificates of merit from the Mass. Horticultural Society.

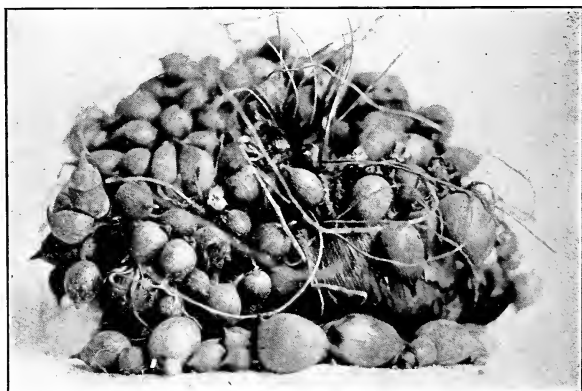


“Doublet”

This variety we sent out for several years, as it used to come quite double. In later years it began frequently to come single. When in nice condition it has four or five double flowers open at a time. Valuable only as a novelty.



“Kunderd Bulbs Produce”



Only about one-fourth natural size.

Illustration shows bulb of a Kunderdii Primulinus which had 302 cormlets. The Kunderdii Primulinus are produced from our large flowered Kunderdii, hence their vigor and prolificacy. Some of them are plain petaled and many are beautifully ruffled. We have produced nearly twice this number of cormlets from a single bulb and one of our customers reports having grown over 900 cormlets from a single bulb in one season.



Why We Catalog Only Our Own Productions

THE exceptional novelty, peculiar individual excellence and perfection of form of these new strains, we believe, justifies our offering them to the public in a class by themselves. In order to produce the utmost possible results in perfecting our labors and giving our friends the best, we do not spare any of our time in growing the standard varieties and other strains, excepting in a limited way for our own comparisons.

We will not weary our readers with a long story of our own, but will give a few of the many fine testimonials we receive. At Chicago, Boston, Newport, New York, and many other places in America, as well as abroad, where these new productions have been grown and exhibited, they have received the very highest praise and many awards.

I will briefly mention only a few of the famous varieties which were originated at my place: Mrs. Dr. Norton, Mrs. Frank Pendleton, Myrtle, Avalon, Mary Pickford, Anthony B. Kunderd, Byron L. Smith, Daisy Rand, Mary Fennel, Marshal Foch, White Glory, Rose Glory, Gov. Hanly, Challenger, Lilywhite, Mongolian, Ida Van, Mrs. W. E. Fryer, Chicago White, Mona Lisa, Indian Summer, Salmon Beauty, Gold Drop, Alice Tiplady, and many others. In one sale alone nearly 400 varieties were sold and many of them were named by their purchaser, Mr. Montague Chamberlain, of Boston. Beside these many others from my stock have been purchased by various parties and named by them. (Over one thousand of my productions have been named.)

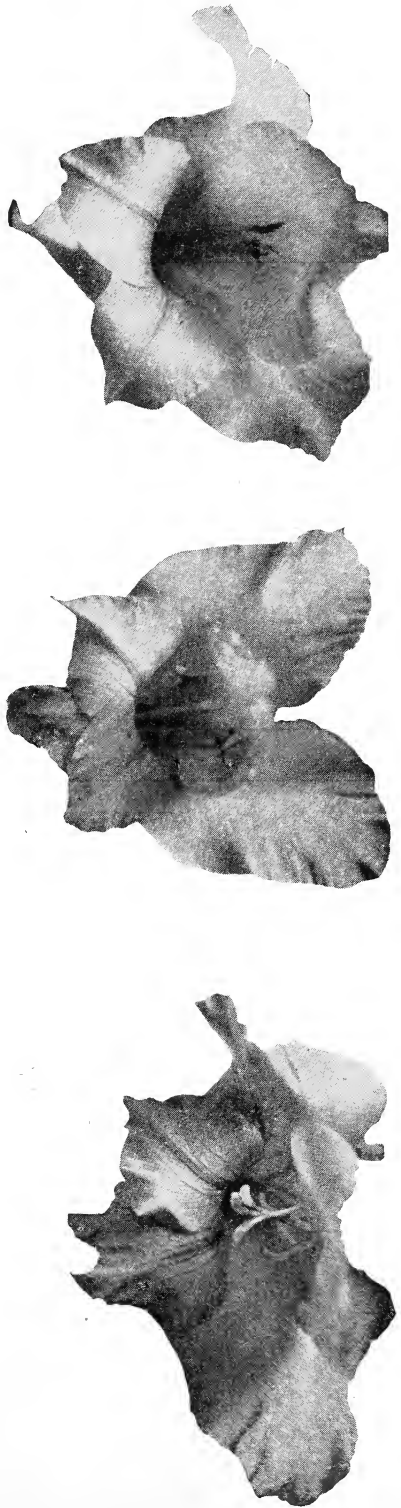
There are now so many *Gladiolus* sold that only very choice varieties are allowed to go into our catalog.

All our named varieties are each clearly distinct from any others. Our mixtures are further improved by the addition of many new kinds each season.





Magnificent New Primulinus Hybrids of "Kunderdii" Types



New Primulinus Hybrids (Kunderdii)

"As lifelike as butterflies, as graceful as orchids."

Primulinus hybrids are distinguished mainly for their fine and various shades of yellow, orange and saffron colors, graceful slender stems and airily poised flowers. Our strains of these vary from other strains of Primulinus hybrids as our Kunderdii differ from other strains of Gladiolus. Our mixtures of these contain many equal to most of the named kinds.

Read the following opinion of Mr. Maurice Field, of New York, seedsman, author and lecturer, founder of The American Gladiolus Society, and one of the best judges of the newer Gladiolus:

"You must know the species called 'Primulinus' before you can fully appreciate what Mr. Kunderd has produced. . . . In the whole world, Mr. Kunderd's new introduction will, for a long time to come, rank as the greatest achievement in Gladiolus culture. . . . The name of Kunderd stands today for the best and choicest in Gladioli of American origin, and to his credit we can recall a host of the best prize winners in our whole collections."

Testimonials

THE name "Kunderd" now stands for the highest in gladiolus, as "Kunderd's Gladioli" has become a familiar phrase in the finest gardens all over the world. It is, however, a great pleasure to offer, each year, some new testimonials from some of our patrons. After all, it is of greater importance to you what our customers say, rather than to be entirely dependent on our own representations. (The following four pages of testimonials have not before been published.)

ALBERT J. COOKE, Head Designer for Nye & Wait Corp., Auburn, N. Y., writes under date of April 1, 1918:

"I am writing you at this rather late date to tell you how much I appreciate the selection you made for me and for your liberality. They were the finest and cleanest bulbs and the finest flowers I have ever had the pleasure of raising, and I have dealt with every one of any account in the States. The Gladiolus is my favorite flower. I am asking you to kindly make another selection for me this year. All my friends who saw my Gladiolus the past year were surprised at the vigor and beauty of your ruffled varieties. They are away 'over the top' of anything else in the Gladioli world. In looking over your fine catalog and reading the testimonials of your customers I thought that if they would only advertise your stock to all their friends you would have to enlarge your farm to take care of the orders."

(We would like to mention here that this year we did nearly fifty times the business done in 1911 and considerably more than twice as much as last year.)

REV. W. G. MAUCH, Larchwood, Iowa, writes under date of Oct. 22, 1918:

"Your Gladioli have been a grand display this summer. They were very tall (some 5½ feet) and sturdy, the flower spikes long and the blossoms so delicate and rich in color and shading that we felt rather rich in having such a collection in our garden, and their cost is insignificant when compared to the pleasure we derived."

A. L. ESPICH, Chief of Police, New Philadelphia, Ohio, writes Aug. 21, 1918:

"Gladioli purchased from you last spring are just through blooming—all big, grand, elegant flowers. I have never had such large plants and blooms. Every one who saw 'Crinkles' was loud in praise of the color. They were all grand—not a slacker in the whole lot."

FORREST R. POPPE, Attorney-at-Law, St. Paul, Minn., writes Aug. 17, 1918:

"I feel that in fairness to you it is fitting that I tell you what success I have attained with the bulbs which I purchased from you. While I have for years past grown Gladioli and always felt that what I had were as good as could be had, I have started to cull out my former ones with the fixed purpose of keeping yours only, as the same are far better than any I have seen. I thank you for past favors and am awaiting your next list."

C. I. SWARTWOOD, Columbus, Nebr., writes under date of Oct. 2, 1918:

"I must tell you about the Gladiolus bulbs bought of you last spring. When blooming time came I got my surprise. Your 'Ideal Mixture' is surely great. The named ruffled ones were beautiful. The intense ruffling gives them such a refined appearance. 'Snow Glory' and 'Mona Lisa' were exceptionally fine."

J. F. BUCKLEY, 96 Magee Ave., Rochester, N. Y., writes Dec. 21, 1917:

"Your *Gladiolus* have always been with me 100% plus in quality and vigor."

FRANCIS H. WILLIAMS, 19 Sanford St., Pawtucket, R. I., writes March 18, 1918:

"In May, 1915, you filled my order for bulbs from the Ideal and *Primulinus* Mixtures. I hesitate to plant mixtures as a rule, because I want quality and know from experience that you are apt to get stung with a lot of worthless stuff; but with your mixtures it is different, for one finds prizes; and if these varieties that I consider prizes are not named varieties they are mighty good seedlings and certainly merit a name. I cannot say TOO much in praise of your stock. It is strong and vigorous. Florets on one variety (*Primulinus*) measured $4\frac{1}{2}$ inches in diameter this season. The *Primulinus* Hybrids I had never grown before receiving yours, and now would not think of growing *Gladiolus* without them with their dainty forms and exquisite colorings. They seem like the flowers of fairyland."

MRS. E. A. BARNES, Plattsburgh, N. Y., writes us in 1918 as follows:

"Your *Gladioli* I grew last year were a revelation to a good many people who thought they knew the *Gladioli*. At our Garden Club *Gladioli* Show I had a good many of your beauties in bloom. They were surrounded almost all of the time by admirers."

H. E. CHRISWELL, Designer and Builder, 62 Wellington Road, Buffalo, N. Y., writes under date of Jan. 30, 1918:

"Your *Gladioli* are certainly exceedingly grand and healthful, and the cultivation of them is our principal recreation."

MARIE DE LA GUADELOUPE, Sapporo, Teuski, Byo, Japan, writes April 28, 1918:

"The bulbs received yesterday. They are lovely and I was very surprised and thankful for the extras."

ARTHUR C. PERRIN, 219 Federal Bldg., Spokane, Wash., writes Jan. 31, 1918:

"Last summer I found that the largest per cent of my choice varieties were of your breeding and that more pleasure is derived from one choice plant than from a thousand scrubs."

REV. CHAS. E. S. RASEY, 528 Gansevoort St., Little Falls, N. Y., wrote us in 1918:

"Thank you for the joy I've had in studying your catalog. In producing the newer races of *Gladioli* and all the wonderful varieties that you have brought out you are living a beautiful life and are a positive benefit to humanity. I believe it!"

A. B. GLOUGH, 89 Franklin St., Boston, Mass., writes under date of Jan. 30, 1918:

"I send you enclosed my *Gladioli* order for the 1918 season. The bulbs that you sent me last spring were very satisfactory, and were all strong and sturdy growers, without one failure. Although I planted a large number of *Gladioli* last summer, yours were the most interesting and pleasing of all. I do not need the two hundred bulbs I am ordering, but I feel that my garden will be more attractive with more of 'Kunderdii' and less of others than last season."

MRS. WALTER REED, "The Cairo", Washington, D. C., writes Feb. 27, 1918:

"Enclosed please find my check for \$3.00. I only wish I could make it \$30.00, for your Gladioli last summer gave me more pleasure than all of the other flowers put together."

GEO. D. COLLY, 30 Noyes St., Woodford, Me., writes under date of Feb. 2, 1918:

"I have never had or seen such beautiful colors or such satisfactory flowers as those purchased from you the last two years."

W. K. WHITAKER, at the State College of Washington, Pullman, Wash., writes under date of Jan. 18, 1918:

"I am enclosing herewith a small order for Gladiolus—my third, I think. Needless to say, your bulbs have given me a degree of pleasure and satisfaction not obtainable elsewhere, and I confidently expect your new varieties I am adding will measure fully up to your standard. My best wishes for your continued success."

HON. JAMES R. MANN (Office of Republican Leader), Washington, D. C., writes under date of Jan. 19, 1918:

"Dear Mr. Kunderd:—Last spring I received from you the Gladiolus sent, including 'Mrs. Frank Pendleton,' and the bulbs were so large and fine and the blooms so wonderfully beautiful that they were almost beyond belief. You are certainly giving great pleasure to many people with your exquisite flower creations and I enclose a new order for bulbs."

HARRIS B. HATCH, 620 Sansom St., Philadelphia, Pa., writes Jan. 28, 1918:

"I am enclosing order, together with my check for \$25.00. I bought a few Gladiolus from you last year. It is because I am so well pleased with them that I am buying more this year. I want to say very frankly to you that your catalog does not truly represent your goods. Bulbs such as I received from you last year and such as I expect to receive this year deserve far better publicity and better printing than you are giving them in your catalog."

F. A. WETZEL (Grower), 211 Griffith St., Syracuse, N. Y. (Member of American Gladiolus Society), writes under date of Aug. 27, 1918:

"The bulbs that I received from you this spring (300) were very fine and are blooming. Your 'Ideal' and 'Grand Mixtures' are without doubt the finest that can be bought regardless of price."

JOSEPH H. PERRY, 276 Highland St., Worcester, Mass., writes March 24, 1918:

"Last summer 'White Glory' was the first to blossom and we thought it the most beautiful Gladiolus, by far, that we had ever seen; but a little later when 'Crinkles' blossomed, we had to admit that this one was even more beautiful. 'Crinkles' is simply a work of art and worthy to be placed by the side of the works of any of the masters, either old or young."

One of Hundreds of Similar Testimonials We Receive

Woodcote, Alverstoke, Hants, England, Dec. 17, 1919.

MR. A. E. KUNDERD.

Dear Sir:—Your announcement in this month's "Flower Grower" made me very sad, as I was looking for your catalog by every mail. When I exhibited some of your varieties in London this year I had many inquiries for your address and I have no doubt you have heard from some. Mr. Barr wrote to me on more than one occasion and I sent him a bloom of "Purple Glory", with which he was very much struck. I also sent you a page of the "Queen" which contained a notice of one of my exhibits.

Now I must exercise my soul in patience until next year, perhaps again to be disappointed. I was wondering whether the purchaser was Mr. Cave, of Essex. He told me that he was growing on all your *Primulinus* varieties for his son, who is now at one of the Horticultural Colleges, so that he might have a good stock available by the time his son was ready to go into the business.

While congratulating you on your great success this year, I hope that you will give your old friends a "look in" next year.

Yours faithfully,

GEO. CHURCHER.

All who receive this booklet will receive our catalog for 1921 in due season. Should any of our friends remove to other locations, please advise us, so we may send mail to your correct address.

We never send our catalogs to miscellaneous lists, but are always grateful to any of our friends who give our address to any one who may be interested in fine *Gladioli*, or send us the address of their friends who are interested. The following letter from Mr. Harold J. Child to Mrs. Francis King, the famous authoress and horticulturist, will show the good you can do for others in this way:

"Of all the flowers of this year I must give the palm to Kunderd. I am not going to attempt a description, because I cannot, but if you had done nothing else for me than to give me Kunderd's name I could never forget what I owed to you. I simply raved over his flowers and so did every one who was fortunate enough to see them."

New Strains of Gladiolus

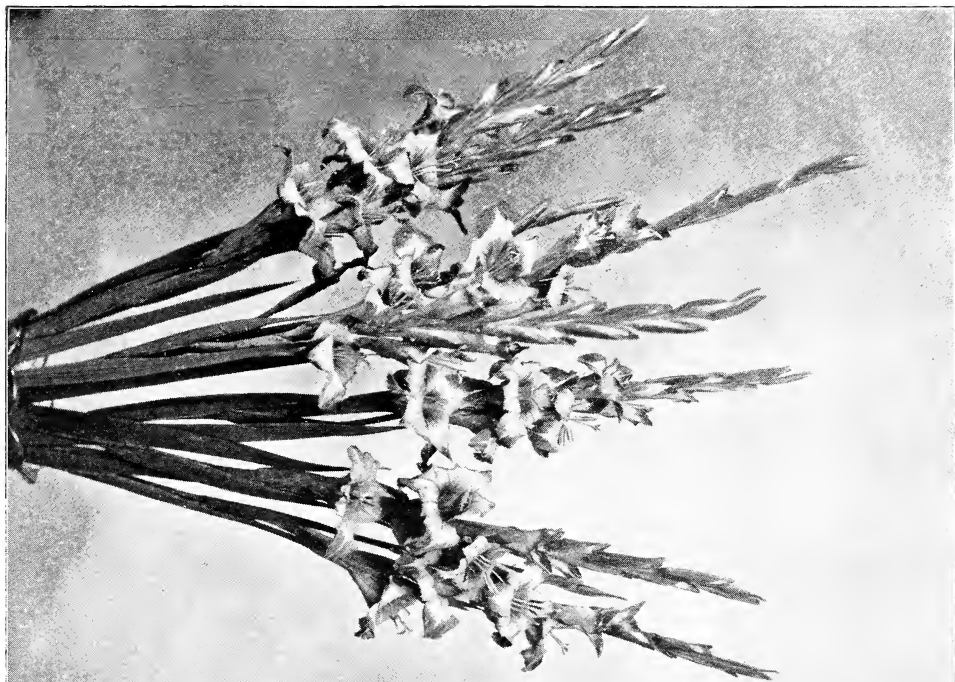
THE following article was published in "Horticulture", London, March 6, 1915, and sent us by an English correspondent. The item was sent them from New York by the late Mr. J. Harrison Dick, editor of "The Florists' Exchange." Mr. Dick was for years one of the leading horticultural authorities in England before coming to America. His "Garden Guide", specially written for the amateur, is one of the finest, best illustrated and most valuable books ever written and invaluable to every grower of a garden.

"Any one looking at the illustration of the Ruffled Gladiolus that accompanies these notes will admit that this latest evolution adds a new feature to the flowers of this genus. This ruffling marks a further advance from the types with which the breeders started. First there was the making of the Gandavensis race by the efforts of Dean Herbert and Louis Van Houtte, the varieties of which were much improved by James Kelway, Sen., who worked on M. Souchet's earlier products. Souchet was gardener at Fontainebleau in the thirties of last century. Whilst Kelway was busy on the Gandavensis varieties, M. Victor Lemoine, of Nancy, was developing his Lemoinei strain, which he got out of *G. purpureo-auratus* and the finer varieties of *Gandavensis*. By using some of the finer blotched varieties from his Lemoinei group on *G. Saundersii*, the Nancy florist obtained also the well-known Nanceianus forms of *Gladioli*.

"Beginning upon selections of the strongest and most vigorous of these several groups, now nearly twenty years ago, Mr. A. E. Kunderd, Goshen, Indiana, U. S. A., has succeeded in getting the ruffled or *Kunderdii* type, of which the flowers here shown as examples. It would appear that the superlative vigor of the corms and constitution of these *Gladioli* has found expression in the convoluting of the perianth segments, and that this wavy type of petal is attractive and charming will probably be admitted by those who appreciate grace as well as richness and strength in these flowers. There is nothing lost—neither size, substance nor color, but an added feature is given and is fixed. He has also got the ruffling on *G. primulinus* hybrids. Mr. Kunderd is a florist of the best type, quite one of the old-fashioned kind, full of a love of his flowers and immersed in his work. He is the raiser of some of the best *Gladioli* in America today, including 'Mrs. Frank Pendleton' and 'Chicago White'. His family now acts with him in his business, and it is to be hoped that he will, after these many years, reap a satisfactory reward from his patient labors.

"Signed: J. HARRISON DICK, New York."

SURPRISE



AMERICAN PILLAR



Testimonials

JOSEPH J. KRUPA, Chicago, Ill., writes us under date of Aug. 18, 1917:

"The trip to your place in Goshen will certainly remain with me a pleasant memory as long as I live. What I saw was beyond all my expectations. It certainly must be a source of pleasure and satisfaction to you to have developed your place to such proportions and achieve such splendid results. The acres of Gladioli fields with riots of colors and all the magnificent new introductions was a sight never to be forgotten. I can only heartily congratulate you on your achievements and wish you all the success in furthering and developing the magnificent flower which has found its way to every true garden and flower lover's hearth."

(Mr. Krupa is one of the foremost gardeners of the Central West and a man thoroughly versed and schooled in European gardens, now located at Oconomowoc, Wis.)

P. W. STEUHMER, Nurseryman, Waupaca, Wis.:

"I grew thirteen of your varieties and all of them are good. The 'Red Amarillas' is a grand thing."

"I like your mixtures. They can not be improved. You certainly have my praise and wonder. Every one is a prize and no end of colors."

E. L. STONEBROOK, Gladiolus Grower, California:

"We are enjoying your Ruffled Gladiolus, and the 'Pendleton', which are in bloom. Your creations are superb."

J. G. BURROWS, Landscape Gardener and Florist, Onset, Mass.:

"You have erected a monument to your memory that will live as long as history, and far outshine the great monumental or memorial Woolworth building in New York City."

E. T. BARNES, Expert Dahlia Grower, Spencer, Indiana (National Co-Operative Show Gardens), writes:

"I have often heard and read of Kunderd's Gladioli, but I did not expect to see as extensive a place as you had. You are certainly deserving of all the credit you have received and more."

HAROLD J. CHILD (Decorator), Toronto, Canada, writes October 8, 1917:

"The season is almost over, although some of your Gladiolus are still blooming. I cannot find words to express the great pleasure I have had for two months in seeing your Gladiolus come into bloom, each seeming to surpass the previous ones. The flowers were wonderful, the colors heavenly. I have many other varieties, but they cannot compare with yours. I am waiting for next spring when I shall certainly get many more from you."

C. M. SCRACE, Los Angeles, Cal., writes under date of Feb. 8, 1917:

"From my trials of your bulbs last year I should say your new varieties do exceptionally well in our climate. Under just ordinary care (without use of fertilizer), 'Old Glory' gave blossoms six inches across, 'White Glory' five inches, 'Youel's Favorite', the eighth flower out, six inches across, 'Red Amarillas' six inches, etc."

GLEN P. HOWARD (Landscape Gardener), Harlan, Iowa, wrote us Aug. 30, 1917:

"I wish to say that I was very much pleased and delighted with the bulbs I ordered from you last spring. I ordered only a few, but I can tell from them the quality of bulbs you raise. You may look for an order from me next spring, and it will be a larger order than last."

MRS. C. A. BRIGGS, Sacramento, Cal., writes under date of August 30, 1917:

"This has been a summer of glorious surprises in my *Gladiolus* garden. Such a wealth of beauty among the new sorts I bought of you. I did not believe it possible to produce another *Gladiolus* as beautiful as 'Mrs. Frank Pendleton', but you have done so, not once but several times. 'Mrs. Dr. Norton', 'Byron L. Smith', 'Mona Lisa', 'Rose Glory', 'Mary Pickford', etc., are in the same class. I will surely send you another and larger order next year."

REV. J. R. LAWRENCE, Townshend, Vt., writes under date of Sept. 20, 1917:

"The *Gladiolus* you sent me were extra fine. I appreciate your kindness in sending me such splendid stock. Would not hesitate to commend it to any one looking for the best in *Gladioli*."

REV. F. J. JANSEN, St. Vincent's Rectory, Elkhart, Indiana:

"The bulbs of *Gladioli* I bought from you last spring were a revelation to me. The ruffled edges, the magnificent size of blossoms, and the delicate coloring, I deemed impossible of attaining. I have sixty different roses blooming in my yard, and while they make a fine appearance, I think the *Gladioli* make a more gorgeous showing."

E. COLVIN, Sylvan, Washington, writes under date of Sept. 26, 1917:

"Please do not forget me when sending out your next catalog. Last spring I sent \$5.00 each to several *Gladiolus* growers, leaving each to send their choice. I received various amounts, some as high as 100 bulbs. You sent me one each of nineteen (19) varieties. I planted each shipment by itself, and you caught my idea exactly, as each bulb turned out to be a beauty, and I had more real pleasure and learned more from the nineteen than from some shipments that had 100."

W. H. PURPLE, Troy, N. Y., writes (after visiting our farm) Sept. 18, 1917:

"I came away from your place with the impression that it was probably impossible to improve on your methods of handling *Gladiolus*. I did not believe there was anybody who could keep a field in such excellent condition and everything so carefully labeled and tagged and free from rogues as your fields appear to be. This is doubtless one of the primary reasons why your bulbs always please as well as the fact that you probably have the best bulbs on the market."

ERNEST PHILLIPS, Superintendent to Commodore E. T. Gerry, Esq., Seaverge, Newport, R. I., writes under date of August 9, 1917:

"Dear Sir:—It is with great pleasure that I write you regarding your strain of *Gladiolus*. This is the second year that I have tested out your stock alongside of several others and they certainly prove far superior in growth and flower. I shall grow your stock only in the future, and you certainly deserve great credit for your work. I wish you every success."

MRS. GRACE B. ROBERTSON, Yakima, Wash., writes under date of July 23, 1917:

"I have been admiring the beautiful *Gladiolus* you sent my sister last spring, and can hardly wait until I have some gorgeous beauties like them for my own garden. I think a man who has given so much beauty and joy to the world should be remembered by coming generations. He needs no greater monument than the beauty he has created. I am just one humble individual, but I do appreciate the gorgeous beautiful flowers that come from the bulbs you send."

CHAS. SMITH, Clarence, Iowa, writes under date of Nov. 20, 1917:

"Your 'Ideal Mixture', of which I grew a few last year, has certainly fixed my ideal of *Gladiolus* mixture so high that nothing but some of your stock will fill the bill for me next season."

The Little Gladiolus Girls



Very Happy With Their Flowers

WHEN children are young is the time to teach them the art of beautifying their home and its surroundings. Nothing would please them more than a collection of nice gladiolus to grow and care for in their gardens.

ENIGMA

E. J. SHAYLOR



Kind Words From Our Friends

JOHN LANE, Kandanga, Queensland, Australia, writes under date of Oct. 18, 1916:

"The *Gladiolus* you sent us have now flowered, and we are well satisfied with them. The intensely ruffled ones as exemplified by 'Pres. Menocal', 'Avalon', 'Roberta', 'Golden Glory', 'Purple Glory', 'Pride of Goshen', and 'Pride of Lancaster', are worthy of our highest praise and recommendation. The great substance of the petals of the varieties mentioned enables them to stand up against our tropic sun without injury, thus adding immensely to their value.

"In the varieties 'Aeolian', 'Pride of Lancaster', 'Pres. Menocal' and 'Avalon', which show a bordering of deeper and contrasting color, still further enhancing the formal beauty of the flower, you have given us our greatest pleasure, and we hope for other varieties of this type from you in the future. Wishing you every success with your life's work, we remain,

Yours faithfully,

JOHN LANE AND (MRS.) ETHEL B. LANE."

MRS. C. A. BRIGGS, Sacramento, California, writes under date of Jan. 31, 1916:

"I have not yet received your latest catalog, and I want one very much. I can never tell you how much real enjoyment I had with the blossoms from those *Gladiolus* bulbs you sent me. For the sum invested, I certainly received the largest dividends of happiness possible.

"I had one hundred 'Pendleton'. I think this one the most beautiful of all. I could use many extravagant adjectives to tell of its wondrous beauty and then not do it justice. It must be seen to be appreciated. I enjoyed 'Glory' almost as much. It is so grand and exquisitely refined looking—a rare lady in her dainty silk ruffles. 'White Glory' is a beauty. I was sorry I had only one of that exquisite kind. One should never order less than a dozen, in order to become well acquainted with any variety. I can scarcely wait for the time to come when we can begin our flower garden."

G. W. IDNER, West Palm Beach, Florida, writes under date of May 29, 1916:

"The *Gladiolus* bulbs you sent me are now done blooming, and, say, I thought I had seen fine *Gladioli*, but never until I saw yours. 'Glory' was five feet high and some had twenty-six blooms, beautifully ruffled. 'Mrs. Pendleton' was as fine as any orchid. If your mixtures come anywhere as fine as what you sent me, will want some about November. We plant here in November, December and January. Thanks for the extras sent."

W. W. WILMORE, *Gladiolus* Specialist, Wheatridge, Colorado, writes Jan. 2, 1915:

"Your new list for 1915 at hand. I have watched your new productions with great interest and heartily congratulate you upon your success. I have grown several of your varieties and as yet I have the first one to see that I would not consider first-class. In fact, I think so much of the ruffled type that I have taken the liberty of having an etching made which I have adopted as a letter-head."

MRS. H. A. HILDRETH, Kingston, Mass., writes under date of March 13, 1916:

"I can't tell you how much pleasure I received from the varieties I had from you last year. They were certainly very beautiful and very greatly admired by my friends and myself. I think 'Myrtle' I had from you is the most exquisite shade of delicate pink I have ever seen, and your 'Ideal Mixture' has the finest varieties I have ever seen in a mixture. Every named variety you sent me gave me the greatest satisfaction. The quality of bulbs could not have been better."

A. L. WOODWORTH, Westport, Conn., writes under date of March 24, 1916:

"I am much pleased with the Ruffled *Gladiolus* you sent me last year. They were by far the most beautiful *Gladiolus* I had ever seen."

Testimonials From Well-Known Authorities

WM. J. STEWART, Editor and Manager of "Horticulture", Boston:

"The Gladiolus bulbs you sent me did splendidly, and the beauty of the flowers has enthused the neighborhood. They will be satisfied next year with nothing short of the finest new sorts."

N. LEON WINTZER, Gladiolus Grower, West Grove, Pa., wrote us May 22, 1916:

"Your kind letter of the 17th is noted, and I only wish I could take to myself the expressions therein, but you evidently have confused me with my father, Mr. Antoine Wintzer, who is the producer of many of the newer varieties of cannas. I passed your good words on to my father—coming from Mr. Kunderd they mean a great deal to him."

LEWIS L. ALLEN, Providence, R. I., writes under date of Dec. 20, 1916:

"The Ruffled Gladioli that I purchased from you opened up a new revelation of what can be accomplished with this wonderful flower. Please, send your 1917 catalog when ready."

A. P. SAUNDERS, Secretary of The American Peony Society, Clinton, N. Y., writes under date of Jan. 27, 1916:

"I have grown your Ruffled Gladiolus for some years and am a great admirer of it. I was much interested to see that the ruffled type is now being extended into a wider range of colors. I have no doubt this fine type of bloom has a great future before it."

P. N. ELMORE, Gladiolus Grower, Tacoma, Wash., wrote us Sept. 13, 1916:

"I can truly say that I never saw finer flowers in my ten years that I have grown Gladiolus, and I have had some fine ones. Your mixture beats them all, and only one bulb that did not grow."

A. RORDAME, Salt Lake City, Utah, writes under date of Oct. 19, 1916:

"I have had in mind to write you for a long time my appreciation and admiration of the lovely Gladioli that I obtained from you. They were truly the glory of my garden."

JOHN I. BEGGS, President of Wisconsin Light, Heat and Power Co., Milwaukee, Wis., writes under date of March 30, 1916:

"Last year I set out at my Country Place, Beggs Isle, Oconomowoc, Wis., over 3,000 Gladiolus from many different sources and of many varieties, and I have no hesitation in stating that those received from you were the best of the entire lot, the bulbs being large and the blooms and foliage profuse and highly attractive."

ORR BROTHERS, Horticulturists, etc., Lower Hutt, New Zealand, write under date of Aug. 17, 1916:

"We are pleased to inform you that every one of the Gladiolus corms which we had from you germinated splendidly, and that the flowers are simply magnificent."

HOWARD BLACKLY, Kalispell, Montana, writes under date of Sept. 18, 1916:

"The Gladioli I got from you last spring, a sample order of your selection, have done surprisingly well. Their growth was remarkable for vigor. 'Red Amaranillas' is an astonishing flower. Shall send you as large an order as I can afford next spring."

A Few More Testimonials

HENRY YOEELL, Secretary of Am. Gladiolus Society, and who has had a life-long experience with Gladiolus (Mr. Youell's father was a famous English nurseryman and the introducer of "Brenchleyensis"), writes:

"I can not express the pleasure your letter gives me in hearing that after your great fight you have won out, and are reaping the benefit of your wonderful productions. Without flattery, no one has produced such beautiful flowers as you have, and the name 'Kunderd' will be handed down with honor to future generations, as the originator of our most beautiful creations. Believe me when I say that among all the men in the trade that I know there is no one I would rather have fortune smile upon than yourself, for you have made a most honorable up-hill fight, so very different from some you and I know. Long may prosperity smile upon you and yours."

S. F. MORTON, of the Evening Express Publishing Co., Portland, Maine (also member of the American Gladiolus Society), in a recent letter, says:

"I never saw such fine flowers in a mixture. I had bulbs from all over the world, but with those you sent me and others of your growing I had from other dealers, your bulbs showed the most beauty and variety, and were wonderful in their vigor and productiveness. Two of your varieties alone were worth the whole season's work, but as the summer progressed and 'Myrtle', 'Summer Beauty', and many others that had your name attached, came along, I was really proud that on this side of the water we could hold our end up so well. I was especially struck by the showing yours made alongside of others, not only in beauty and size of blossoms, but in the sturdy health of your plants which seemed to be universal."

REV. MAGEE PRATT (the Author), Granby, Conn.:

"My Dear Mr. Kunderd:—I thought that I ought to report to you, as the Gladiolus season is over with me. I have never had finer flowers than this year, and never seen so fine as yours before. I have known the flower for forty years; have seen the best in England, grown from the finest in Europe, and your productions excel any and everything in the Gladiolus family. In fact, they have spoiled my own for me. I have a mixture made up of the best varieties I could buy in large assortment, but it is far inferior to yours, and the worst of yours is this: that its superiority is so self-evident that my own look mean. Only a few of my named varieties, such as 'Panama', 'Rosella', etc., ought to be allowed in the same garden as your productions."

MISS GRACE RESHORE (Librarian), Dowagiac, Mich., a well-known amateur, writes:

"Your Gladiolus have no equal. They certainly are in a class by themselves."

E. H. CUSHMAN, Sylvania, Ohio, one of the oldest growers, and a leading authority, writes:

"What you are doing is probably the most important work on the Gladioli ever undertaken. I consider it much ahead of anything Mr. has done."

H. E. MEADER (Elected President of The American Gladiolus Society, 1919), Dover, N. H., wrote us Nov. 6, 1916:

"In several years' experience with your methods, permit me to express my appreciation of you as a straightforward business man who can always be depended on for a square deal, most generously measured. In a selected collection of the choicest varieties from the most noted specialists, both here and abroad, your exquisite creations proved the premier attraction of my gardens, and I have exhibited them to my entire satisfaction at several of the largest shows, where they received highest honors."

REV. GEORGE SCHOENER (the great Rose Originator), says under date of May 15, 1917:

"My Dear Mr. Kunderd:—The flowers from the bulbs you sent me last year were exceedingly beautiful, and I may well say excel all other Gladioli. You surely reign supreme in this branch of horticulture."

Then again, August 30, 1917: "I cannot help but write you at least a few words, that the Gladioli which you sent me are now in full bloom. They are, one and all, a revelation of beauty. I must admit that the Gladioli surpass even roses in fine shades and penciling. If they would yet have a good perfume they would stand supreme. I trust that you have again this year some grand seedling for the pleasure of your many admirers."

(Fr. Schoener's new creations in new giant edible podded peas, hybrid beans, etc., are becoming an asset to American food products. He is one of those very scientific plant breeders whose labors are applied to thorough studies for practical results. His new home is at 705 E. Monticello St., Santa Barbara, Calif.)

J. H. SKINNER, Publisher of "The Austin Herald", Austin, Minn., on Dec. 4, 1916, writes:

"The bulbs I got from you last spring were the most successful I ever planted. The flowers were more beautiful than any floral catalog. This means much in these days of fancy printing."

F. G. YULE, Vice-President of C. S. Harrison's Select Nurseries, of York, Neb., writes:

"I have had the Gladiolus on my grounds for a number of years and was perfectly satisfied with my flowers until I saw yours; then I made up my mind I had never yet seen Gladioli. The nursery considers their Gladiolus acquisition as so much 'pure gold'."

J. M. ADAMS, Hartford, Conn., writes:

"I have made out a list of new varieties which I desire, but it is hard to choose, for all the varieties you put out are full of merit. I certainly think your originations are far ahead of all others."

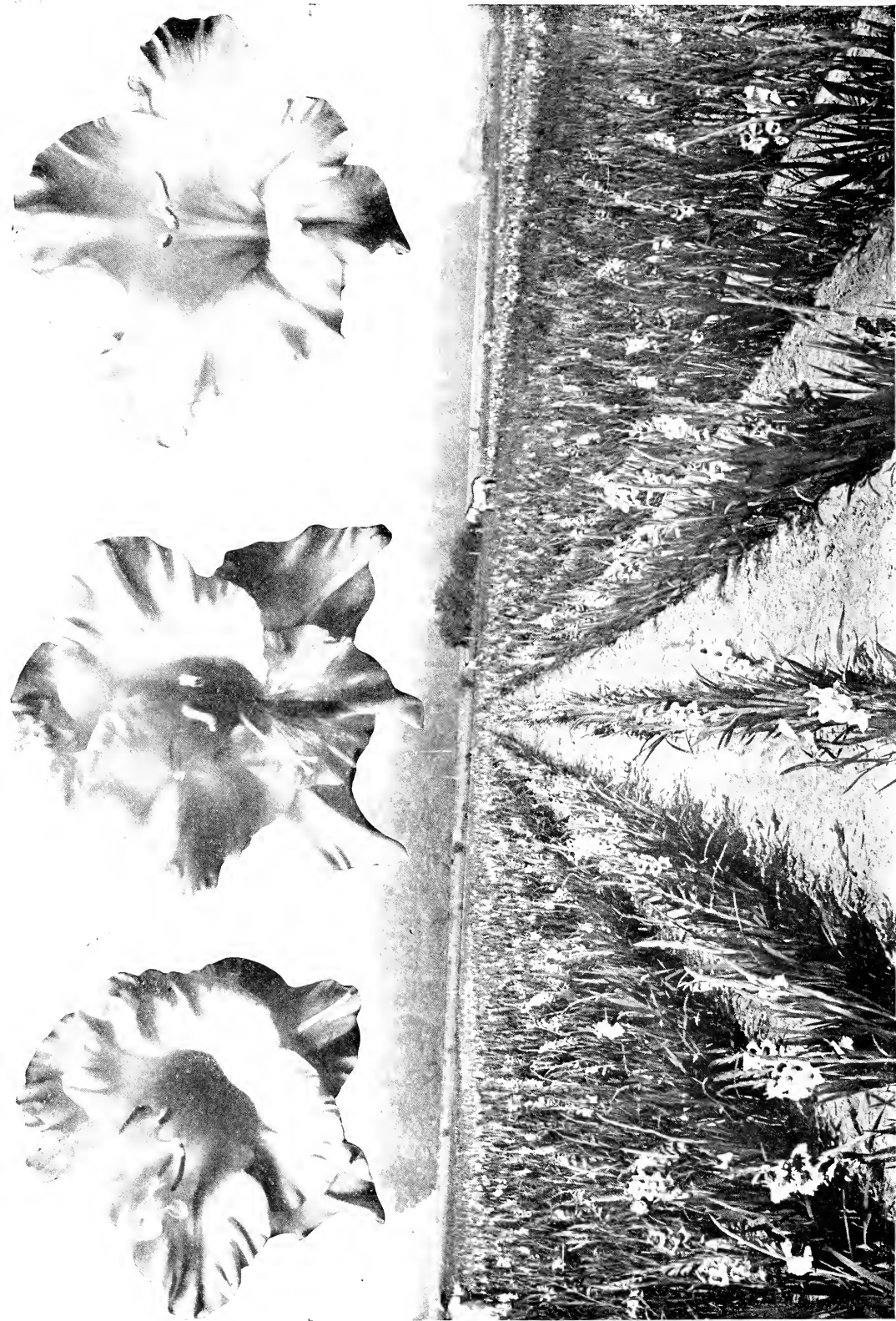
PROF. R. C. H. LENSKI, D. D., Capital University, Columbus, Ohio:

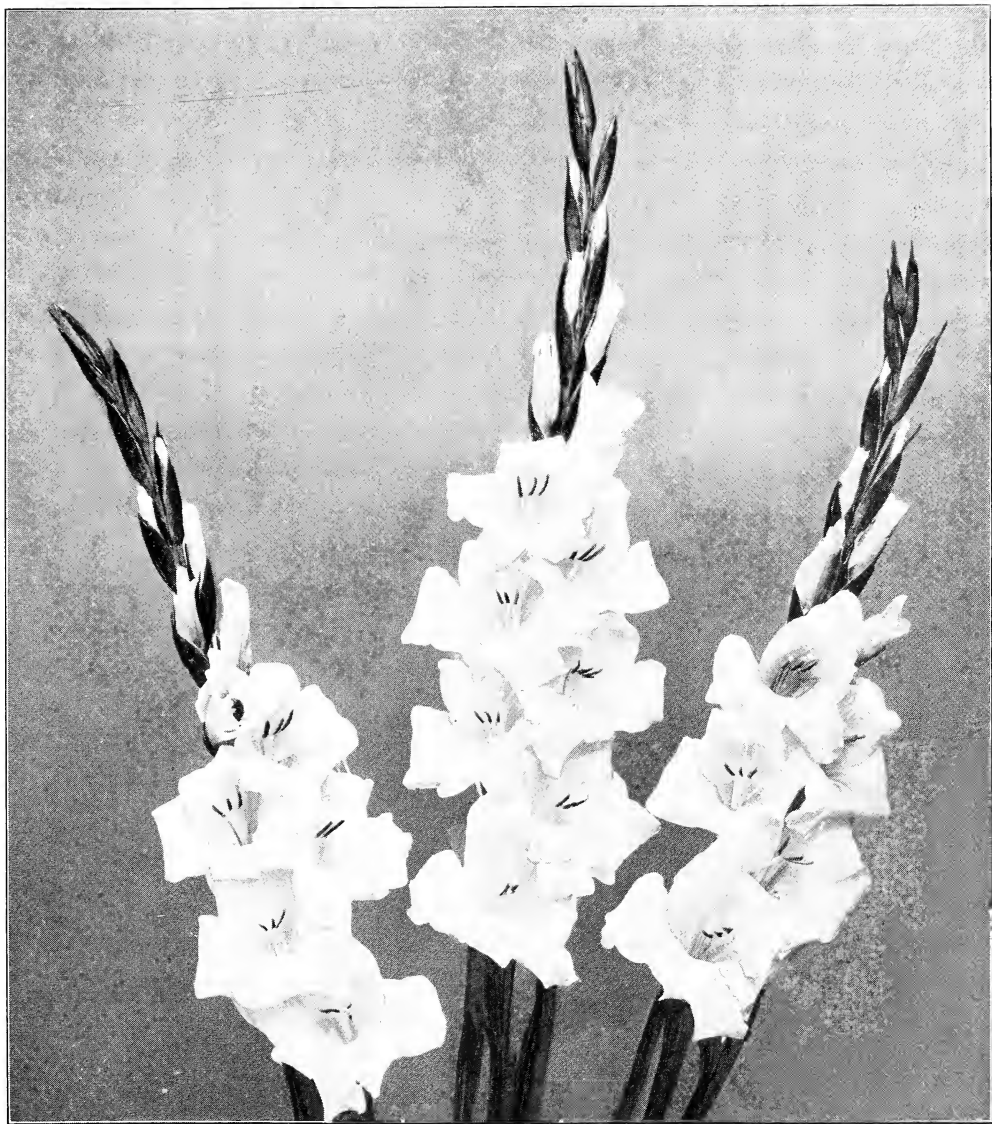
"The bulbs have all bloomed simply wonderful. 'Pendleton', 'Kunderdi Glory', 'Pride of Goshen', and 'White Glory' were a revelation to me."

E. T. FLANNEGAN, San Gabriel, Cal. (Gladiolus Specialist), writes:

"There is no comparison between your Gladioli and older kinds, for your new varieties are incomparably the best."

Again: "It is a real pleasure to deal with a man like you. And I am not flattering you. I got more than value received every time."





MISS U. A. S.

This photograph shows the two side spikes on first day of opening; the center spike shows bloom on the second day.

Planting, Culture, Storage, Etc.

ALTHOUGH no flower gives more satisfaction than the *Gladiolus*, with ordinary care and culture in average soils, it readily responds to high culture, and the superior blooms produced by special attention amply repay for the additional care. Only those who have seen the *Gladiolus* at its best can realize the vast difference between those produced by first-class methods, and those less carefully grown. We strongly advise our friends to employ only the best cultural methods possible under their conditions.

PLANTING AND CULTURE. It is best, if possible, to use new location, or soil, each season, so that bulbs are not planted oftener than every third year in the same soil. It is advantageous to spade in a good covering of manure late in the fall preceding the plantings to follow. The richer the soil and better the care and culture, the better the results will be. In spring, when the soil is in proper condition, spade deep and pulverize thoroughly. At planting time, only well rotted manure or high grade potato fertilizers should be used. For long blooming seasons, plant at intervals of about two weeks from first garden-making time until the middle or latter part of June. Bulbs can be planted four inches deep and over in mellow soils, and four to eight inches apart in the row. The deeper planting will help to keep the plants from falling over at blooming time. Liquid fertilizer or prepared sheep manure can be applied to the soil near the rows once every week or ten days, care being exercised not to make applications too strong. Frequent thorough waterings of the soil in the beds at evenings is a wonderful stimulant, and gives the blooms much greater sun resistance and lasting qualities. Keep the soil well worked and frequently, especially early the next forenoon after being watered the previous evening. Always keep a soil crust from forming in the rows among the plants. After blooming spikes begin to show cultivate only about two inches deep. Do not work soil when wet. Scotch Soot applied to the soil when plants are half grown, intensifies deep shades. Weak lime water applied to soil shortly before blooms begin to open is said to clarify the more delicate shades. Prepared ground bone, or other high-grade fertilizers, can be sprinkled over the soil near the plants, between rows, and raked in to good purpose. Nitrate of Soda (about a tablespoonful to two gallons of water for each dozen plants) applied to the soil near the rows once every week or ten days after buds begin to show color, is very beneficial. Or: Sprinkle the pulverized Nitrate of Soda over the soil, rake in and water.

IMPORTANT. Varieties vary in different soils and seasons. Some do their best only in alternate years. To grow magnificent *Gladiolus*, have soil fertile and mellow. Cultivate thoroughly and often. Water abundantly, and never leave a crust to form over the soil between rows or near the plants.

STAKING. Slender stakes of wood or bamboo painted a light green make good support for the spikes at blooming time. Where horizontal lines are used they should be fastened to end posts firmly set and the wires tightly stretched. A few more stakes should also be placed at intervals along the lines. Use strips of cloth instead of cord to tie the blooming spikes to their support. Painted white pine labels, copper wired, are very suitable for marking plants. Any seedsman can furnish these.

BLOOMING. For best results, cut the spikes when the first flowers open, and let them bloom in the house. Each morning remove wilted blossoms, cut off a little of the stems, cutting them with a long slope (not square across), rinse and give fresh water. Placing them in a cool cellar over night greatly refreshes and improves them.

Many beautiful designs can be made, either with tips of spikes or single blossoms, in rounds, ovals, fans, etc., in plates, pans, vases or shallow dishes and other receptacles. Elegant floral baskets can be arranged with fern leaves, florists' asparagus, the common garden asparagus, and various other flowers, foliage, etc.

If good bulbs are desired for the following year, four to five strong leaves should be left on the plants when cutting the spikes.

STORING. Bulbs should be dug before the plants are too ripe. In the fall, before hard frosts, dig the bulbs and cut off the tops. Dry well in the air and sunshine, cure thoroughly in-doors for a few weeks, then store in a cool, dry cellar. A covering of sand while in storage (after bulbs are well cured) is a protection against frost or dampness. Keep as near 40 degrees as possible. Dampness in storage tends to develop disease.

It is best not to place bulbs more than four inches deep while in storage. Florists' flats are very suitable for this purpose. A splendid crate is made with four-inch boards, using plastering lath closely laid for bottoms. Make in sizes of two feet square, or two by three feet, etc., as may be best suited to your purpose.

HOW TO GROW PRIZE WINNING GLADIOLUS BLOOMS

WE often receive inquiries as how to grow giant flowers and plants of Gladiolus, such as are sometimes seen at exhibitions and described in catalogs. Gladiolus may be grown to extremely large sizes if forced by unnatural methods, if soil and culture are of the best. If possible, the place where the bulbs are to grow should be heavily enriched the preceding year by a liberal application of the richest barn manures, well forked in, in the fall. In addition, a good coat of the same materials should be spread over the spaded surface, in order that its strength may be well leached into the soil during the winter and early spring. Some growers also add pulverized sheep manure by scattering along the trenches, before placing the bulbs, then cover the bulbs (or corms) an inch or two and give an additional application, over which the remaining soil is placed. (10 to 25 per cent. of powdered wood charcoal added to the shredded sheep manure is a valuable addition.) Complete fertilizers with a good per cent. of potash may be used to additional advantage. Do not set bulbs too thickly. If largest plants and flowers are desired, rows should be two feet or more apart, and bulbs a foot or over apart in the rows. After the plants are well grown, about the time the "spikes begin to shoot", and the soil is well warmed by the sun, a mulch of well prepared stable manures should be spread over the bed between the rows. At all times this mulch should be abundantly watered to get the benefit of the fertility and hold plenty of moisture. Never allow the soil to become the least bit dry. By carefully making application of these methods and following the other cultural advice given above, you can learn to grow "Giant Gladiolus" with blooms "six to seven inches across and spikes five to eight feet tall." (See testimonial of Mr. C. M. Scrape, Los Angeles, Cal.)

CAUTION. Do not think that all the above methods are recommended to be used at one time in any one case. Very stimulating or over-high culture does not produce as good bulbs for the following year as those produced with average care.

BULBS AFFECTED WITH DISEASE or scab may be benefited as follows: Soak bulbs in a bichloride of mercury (corrosive sublimate) solution of fifteen grains to each gallon of water for twenty minutes. Or: Use two ounces of corrosive sublimate dissolved in fifteen gallons of water and soak for two hours (for smaller amounts in proportion). Or: use one ounce of 40% formaldehyde to each four gallons of water and immerse bulbs for twenty minutes to one hour. I have left bulbs immersed for longer periods in even stronger solutions, but care must be exercised not to make the treatment too severe for fear of injury. These treatments are generally employed just before planting. Sometimes it is best to remove the peel before bulbs are treated.

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